

DOCKET FILE COPY ORIGINAL

RECEIVED

MAR 3 1 1993

Before the

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

" One area where aid in implementation of analysis of these interferences by the Commission's staff may be found is in the requirement of inclusion of a radio shadow map of the protected station which also depicts the Protected Service Areas ("PSA") of any station which may be affected."

In the above captioned Report and Order, the Commission expanded upon this idea to the changes defined by Sections 21.902(c)(2)(i) and (ii). The maps now required would include all stations within 100 miles (160.94 km) of the proposed station and depict the D/U Signal boundary of either 45 dB for cochannel stations or 0 dB for adjacent channel stations.

Proposed Changes

While H&A supports the spirit of the changes to the aforementioned sections of the Part 21, we propose several changes to ease in the preparation, handling and processing of the applications.

1) We propose that the particulars for each station, or stations in the case of collocated stations, be placed on a separate map contained on a single 8 1/2 by 11 inch page. In the case of a congested market, the present proposal for one map containing all the stations within 100 miles (160.94 km) could cause the map to be unintelligible. By placing each station or stations on a separate map, the analysis by visual inspection would be much easier and faster. The scale of these maps, as finally included in the application, should be no smaller than 1:1,000,000. By requiring the information on single sheets, the applications will be easier to store and copy. As consulting engineers, we regularly obtain

copies of applications for coordination purposes and having the maps on anything but 8 1/2 by 11 sheets would cause delays or omissions in the duplication process and endanger the coordination process.

2) We propose, as we originally proposed in our comments shown above, that each map make a positive demonstration of the areas of the desired station's Protected Service Area ("PSA") which are protected due to the lack a unobstructed electrical path. The generally accepted methodology for such a demonstration is a Radio Shadow Map. We believe that this is an integral and imperative requirement. In most cases, the line of sight coverage of a station in this service is not clearly or completely defined by the 4/3 earth radio horizon. Only by the requirement of inclusion of a radio shadow map based on a 3 second database or better and a radial spacing of no more than 2.5 degrees in azimuth will confirm the actual station coverage.

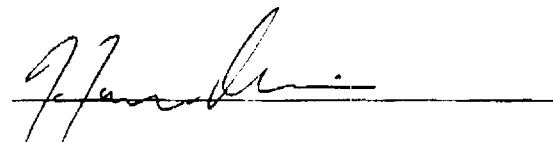
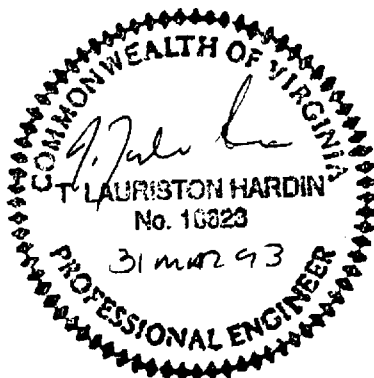
3) In many cases, there will be no area within the PSA of the desired station where an unobstructed electrical path exists from the proposed station. In these cases, the calculation of the D/U signal ratio is impossible and meaningless. In these cases, the rules should allow the applicant to add a statement to the associated map defining that to be the case. As the rule is presently defined, the applicant will be require to analyze the entirety of the path between the proposed and desired stations to determine the location of the benchmark point along every azimuth. This is an undue and inappropriate burden. Additionally, in the case of H&A and many other consulting engineers in this service, the models we employ to determine the D/U ratio at points within the PSA of the

desired station do not extend beyond the PSA of the desired station. However, if the radio shadow map shows areas within the PSA of the desired station for which an unobstructed electrical path exists, the applicant should be required to provide an analysis which confirms that the D/U signal ratio for these areas is greater than the 45 dB cochannel or 0 dB adjacent channel benchmark.

Conclusion

H&A applauds the continued actions of the Commission as regards the regulation of the MDS and ITFS services, including the latest changes included in the above captioned Report and Order. However, in light of the Commission's desire to speed the processing of applications, we believe that the Commission should adopt the changes outlined herein.

Respectfully submitted this 31st day of March, 1993.



T. Lauriston Hardin, P.E.
President
Hardin and Associates, Inc.

Contributing Engineers:

Ronald J. Myers
George W. Harter, III
John W. (Jack) Beck